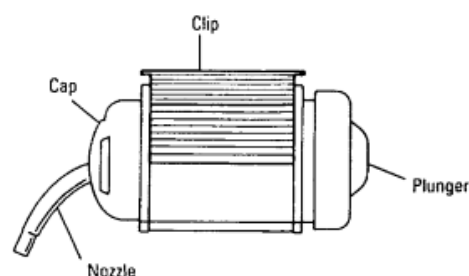


50-23 Durelon Maxicap Cement (Project 96-23) (10/96)

Durelon Maxicap Cement is an encapsulated polycarboxylate cement. The nonencapsulated version of Durelon has been available for many years and has been accepted by clinicians because of its biocompatibility and ability to bond to tooth structure. Unfortunately, its two primary shortcomings, short working time and high viscosity, have limited its use in certain clinical situations. ESPE America has recently made the product available in an encapsulated form. As is the case for most encapsulated products, Durelon should benefit from the encapsulation because it provides a consistent powder-to-liquid ratio and should reduce the amount of time required to mix the cement. The product is supplied in a large-capsule (Maxicap) version only. The capsules are made of white plastic with a purple plastic clip on the back and are provided individually sealed in foil blister packs. Once the capsule is removed from the blister pack, ESPE America recommends that it be used within one month. To use the cement, a capsule is first activated by placing it in a metal activator device and squeezed. The activated capsule is then placed in a triturator and mixed for 10 seconds at 4300 cycles per minute. The capsule is removed from the amalgamator and its nozzle is unfolded. It is then placed in a hand-held metal applier device that is used to express the cement from the capsule. ESPE America recommends Durelon Maxicap Cement for the cementation of inlays, crowns, and fixed partial dentures. It may also be used as a cement base. The product is supplied with a Material Safety Data Sheet (MSDS).



Manufacturer:

ESPE America
1710 Romano Drive
P.O. Box 111
Norristown, PA 19404-0111
(800) 782-1571
(610) 277-3800
(610) 239-2301 FAX

Suggested Retail Price:

\$167.80 Durelon Maxicap Introductory Package (product code 5630)
20 Maxicap capsules
1 metal activator
1 metal applier
\$71.25 Durelon Maxicap Standard Package (product code 5631)
20 Maxicap capsules

Government Price:

\$92.92 Durelon Maxicap Introductory Package (product code and contents as listed above)
\$39.45 Durelon Maxicap Standard Package (product code and contents as listed above)

ADVANTAGES:

- + Excellent film thickness (13.2 microns).
- + Setting rate is appropriate and matches the value claimed by the manufacturer; clinicians can clean up excess cement without undue delay.
- + Working time was appropriate; clinicians did not have to rush to complete the cementation process.

- + Product's high degree of radiopacity ensures easy detection on radiographs.
- + Encapsulation makes mixing easy and cleanup quick; also ensures that the cement is mixed using a consistent and accurate powder-to-liquid ratio.
- + Capsule mixing system worked well and produced consistent, homogeneous mixes.
- + Capsule has a folding nozzle that enables it to be mixed in most amalgamators with covered mixing chambers.
- + Capsule nozzle makes direct placement of the cement possible.
- + Excess cement was easy to remove from margins.
- + Expiration date is clearly stamped on each blister pack.
- + Packaged with a Material Safety Data Sheet (MSDS).
- + Evaluators reported no instances of patient discomfort after use.

DISADVANTAGES:

- Metal activator required to activate capsules prior to trituration.

SUMMARY AND CONCLUSIONS:

Laboratory testing found Durelon Maxicap Cement to be adequately radiopaque. It forms an acceptably-thin film thickness and has an appropriate working time. Clinical evaluators appreciated the fact that the cement was packaged in capsules because it made mixing the cement easy and quick. The capsule mixing system also produced thoroughly mixed cement and the amount dispensed from the capsules was consistent. Durelon Maxicap Cement also had an appropriate viscosity, which the clinical users compared to that of the traditional glass-ionomer cement, Ketac-Cem (ESPE America). The manufacturer's instructions are concise, clear, and direct. Clinicians who prefer to use polycarboxylate cements should enjoy using this product. **Durelon Maxicap Cement** is rated **Acceptable** for use by the federal dental services.